WHAT IS CLAIMED IS:

1. A method for preventing or inhibiting neuronal degeneration, or for promoting nerve regeneration, in the central nervous system or peripheral nervous system, which comprises administering to an individual in need thereof an effective amount of:

(a) activated T cells which have been activated by Cop 1 or a Cop 1-related peptide or polypeptide; or

(b) Cop 1 or a Cop 1-related peptide or polypeptide.

2. A method in accordance with claim 1, wherein said administering step comprises administering to said individual an effective amount of activated T cells which have been activated by Cop 1 or a Cop 1-related peptide or polypeptide.

3. A method in accordance with claim 2, wherein said NS-specific activated T cells are autologous T cells, or allogeneic T cells from related donors, or HLA-matched or partially matched, semi-allogeneic or fully allogeneic donors.

4. A method in accordance with claim 3, wherein said T cells are autologous T cells which have been stored or are derived from autologous CNS cells.

5. A method in accordance with claim 3, wherein said T cells are semi-allogeneic T cells.

6. A method in accordance with claim 1, wherein said administering step comprises administering to an

individual in need thereof an effective amount of Cop 1 or a Cop 1-related peptide or polypeptide.

7. A method in accordance with claim 6, wherein said Cop 1 or a Cop 1-related peptide or polypeptide is Cop 1.

8. A method in accordance with claim 6, wherein said Cop 1 or a Cop 1-related peptide or polypeptide is a Cop 1-related peptide or polypeptide.

9. A method in accordance with claim 6, in which said Cop 1 or a Cop 1-related peptide or polypeptide is administered in a manner which promotes active immunization of the individual so as to build up a critical T cell response.

10. A method in accordance with claim 1, wherein said Cop 1-related peptide or polypeptide is a random copolymer that cross-reacts functionally with myelin basic protein (MBP) and is capable of competing with MBP on the MHC class II molecule in antigen presentation.

11. A method in accordance with claim 10, wherein said random copolymer comprises one amino acid selected from each of at least three of the following groups:

(a) lysine and arginine;

(b) glutamic acid and aspartic acid;

(c) alanine and glycine; and

(d) tyrosine and tryptophan.

12. A method in accordance with claim 11, wherein said random copolymer contains four different amino acids, each from a different one of the groups (a) to (d).

13. A method in accordance with claim 12, wherein said four different amino acids are alanine, glutamic acid, lysine and tyrosine.

14. A method in accordance with claim 12, wherein said random copolymer contains three different amino acids, each from a different one of three groups (a) to (d).

15. A method in accordance with claim 14, wherein said random copolymer contains tyrosine, alanine, and lysine.

16. A method in accordance with claim 14, wherein said random copolymer contains tyrosine, glutamic acid and lysine.

17. A method in accordance with claim 14, wherein said random copolymer contains lysine, glutamic acid, and alanine.

18. A method in accordance with claim 14, wherein said random copolymer contains tyrosine, glutamic acid, and alanine.

19. A method for treating neuronal degeneration caused by injury or disease, which comprises administering to an individual having neuronal degeneration caused by injury or disease an effective amount of:

(a) activated T cells which have been activated by Cop 1 or a Cop 1-related peptide or polypeptide; or

(b) Cop 1 or a Cop 1-related peptide or polypeptide.

20. A method in accordance with claim 19, in which said injury or disease comprises spinal cord injury, blunt trauma, penetrating trauma, hemorrhagic stroke, or ischemic stroke.

21. A method in accordance with claim 19, in which said injury or disease is Diabetic neuropathy, senile dementia, Alzheimer's disease, Parkinson's Disease, facial nerve (Bell's) palsy, glaucoma, Huntington's chorea, amyotrophic lateral sclerosis, status epilepticus, non-arteritic optic neuropathy, or vitamin deficiency.

22. A method in accordance with claim 19, in which said injury or disease is other than an autoimmune disease.

23. A method in accordance with claim 19, wherein said administering step comprises administering to said individual an effective amount of activated T cells which have been activated by Cop 1 or a Cop 1-related peptide or polypeptide.

24. A method in accordance with claim 23, wherein said NS-specific activated T cells are autologous T cells, or allogeneic T cells from related donors, or HLA-matched or partially matched, semi-allogeneic or fully allogeneic donors.

25. A method in accordance with claim 24, wherein said T cells are autologous T cells which have been stored or are derived from autologous CNS cells.

26. A method in accordance with claim 24, wherein said T cells are semi-allogeneic T cells.

27. A method in accordance with claim 19, wherein said administering step comprises administering to an individual in need thereof an effective amount of Cop 1 or a Cop 1-related peptide or polypeptide.

28. A method in accordance with claim 27, wherein said Cop 1 or a Cop 1-related peptide or polypeptide is Cop 1.

29. A method in accordance with claim 27, wherein said Cop 1 or a Cop 1-related peptide or polypeptide is a Cop 1-related peptide or polypeptide.

30. A method in accordance with claim 27, in which said Cop 1 or a Cop 1-related peptide or polypeptide is administered in a manner which promotes active immunization of the individual so as to build up a critical T cell response.

31. A method in accordance with claim 19, wherein said Cop 1-related peptide or polypeptide is a random copolymer that cross-reacts functionally with myelin basic protein (MBP) and is capable of competing with MBP on the MHC class II molecule in antigen presentation.

32. A method in accordance with claim 31, wherein said random copolymer comprises one amino acid selected from each of at least three of the following groups:

(a) lysine and arginine;

(b) glutamic acid and aspartic acid;

(c) alanine and glycine; and

(d) tyrosine and tryptophan.

33. A method in accordance with claim 32, wherein said random copolymer contains four different amino acids, each from a different one of the groups (a) to (d).

34. A method in accordance with claim 33, wherein said four different amino acids are alanine, glutamic acid, lysine and tyrosine.

35. A method in accordance with claim 33, wherein said random copolymer contains three different amino acids, each from a different one of three groups (a) to (d).

36. A method in accordance with claim 35, wherein said random copolymer contains tyrosine, alanine, and lysine.

37. A method in accordance with claim 35, wherein said random copolymer contains tyrosine, glutamic acid and lysine.

38. A method in accordance with claim 35, wherein said random copolymer contains lysine, glutamic acid, and alanine.

39. A method in accordance with claim 35, wherein said random copolymer contains tyrosine, glutamic acid, and alanine.